

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original). A diffuser assembly for finely dispersing a gas or a liquid flowable material comprising:

- a housing formed of a dense ceramic material, said housing including a base portion having a floor and an integral fitting portion having a feed tube for transfer of said medium to said base portion, said base portion having an undercut shoulder extending along the perimeter of said base portion; and
- a diffuser plate formed of a porous ceramic material, said diffuser plate having upper external and lower internal surfaces and a rim portion extending along the perimeter of said plate,

said shoulder portion of said base portion extending around at least a part of said rim portion of said diffuser portion so as to securely engage said rim portion, said internal surface of said diffuser plate and said floor of said base portion defining a chamber adapted to receive said flowable material under pressure through the feed tube of said fitting portion, said flowable material being capable of being diffused through said diffuser plate.

Claim 2 (original). A diffuser assembly as set forth in claim 1 wherein said housing is formed of an injection molded ceramic material and said rim portion of said diffuser portion is ceramically bonded to said shoulder portion of said base portion.

Claim 3 (original). A diffuser assembly as set forth in claim 1 wherein said floor of said base portion includes a bottom surface and a shelf surface disposed along the perimeter of said floor, said shelf surface supporting said diffuser plate along the outer

perimeter of said diffuser plate, said bottom surface defining the bottom of said chamber.

Claim 4 (original). A diffuser assembly as set forth in claim 3 wherein said bottom surface of said floor of said base portion comprises a craggy surface.

Claim 5 (original). A diffuser assembly as set forth in claim 4 wherein said craggy surface partially contacts and supports the lower internal surface of said diffuser plate.

Claim 6 (original). A diffuser assembly as set forth in claim 1 wherein said diffuser plate and said shoulder portion of said housing are circular.

Claim 7 (original). A diffuser assembly as set forth in claim 1 wherein said fitting portion includes a base portion having external threads to facilitate the attachment of said assembly to a pipe for feeding said flowable material to said assembly.

Claim 8 (withdrawn)

Claim 9 (original). A diffuser assembly comprising:

- a diffuser element formed of a porous ceramic material;
- a base formed of a non-permeable ceramic material, the base including a peripheral undercut shoulder portion that overlaps a perimeter edge of the diffuser element to sealingly connect the diffuser element to the base; and
- a conduit formed in a fitting portion of the base for directing a stream of gas or liquid that is capable of diffusing through the diffuser element into a chamber formed between an inner surface of the diffuser element and a floor portion of the base.

Claim 10 (original). The diffuser assembly according to claim 9 wherein the diffuser element is ceramically bonded to the base without the use of any adhesives or bonding agents.

Claim 11 (original). The diffuser assembly according to claim 9 wherein the diffuser assembly does not comprise any components formed of metal or organic materials.

Claim 12 (original). The diffuser assembly according to claim 9 further comprising external threads formed on the fitting portion for use in facilitating the attachment of the diffuser assembly to a gas or liquid supply pipe.

Claim 13 (original). The diffuser assembly according to claim 9 wherein the floor portion of the base includes a plurality of projections.

Claim 14 (original). The diffuser assembly according to claim 13 wherein at least one of the projections contacts the inner surface of the diffuser element.

Claim 15 (original). The diffuser assembly according to claim 9 wherein the diffuser element comprises a plate having a circular shape.

Claim 16 (original). The diffuser assembly according to claim 9 wherein the base is formed of an injection-molded non-porous ceramic material.

Claim 17 (original). The diffuser assembly according to claim 9 used to diffuse ozone gas into water.

Claims 18 - 23 (withdrawn)